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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/606,604	06/26/2003	Cesar A. Gonzalez	VRT0055US	4147

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EXAMINER

DOAN, DUC T

ART UNIT PAPER NUMBER

2188

DATE MAILED: 01/24/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/606,604

Applicant(s)

GONZALEZ, CESAR A.

Examiner

Duc T. Doan

Art Unit

2188

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 07 November 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-33 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-33 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date 11/7/05 6/6/05

- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☒ Other: IDS acknowledged 6/6/05 8/17/05 6/9/05

***DETAIL ACTION***

***Status of Claims***

***Response to Amendment***

Claims 1-33 were pending in this application. In response to the last Office Action, Claims 1,4-6,10,12,15-16,18,21,24-28,30,33 have been amended. As a result, claims 1-33 are remain pending in this application.

Claims 1-33 are rejected.

Applicant's arguments filed 11/07/05 have been fully considered but they are not persuasive. Therefore, the rejections from the previous office action are respectfully maintained, with changes as needed to address the amendments

All rejections and objections not explicitly repeated below are withdrawn.

***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 1-12,15-18,21-24,27-32 rejected under 35 U.S.C. 102 (e) as being anticipated by Trimmer et al (US Pub 2004/0111251).

As for claim 1, Trimmer describes a system comprising: a virtual device interface, wherein said virtual device interface is configured to allow a primary storage unit to be accessed as a secondary storage unit (Trimmer's page 1, paragraphs 1-5 describes an embodiment in which the normally primary storage devices such as disks are provided for backed up data, thus disks are being used as a secondary storage unit to store backed up data; paragraph 4), and said virtual device interface is coupled to control said primary storage unit and said secondary storage unit (Trimmer's page 4 paragraph 32 describes the code in the data protection application DPA and emulation module providing interface not only for common device interfaces such as SCSI or FC but it also intercept a command and providing the translated commands to the real physical storage device. Thus, Trimmer clearly describes the DPA and emulation module comprises of a virtual device interface that can control the physical secondary storage device by sending it the translated commands)

As for claims 2-5, Trimmer describes wherein said virtual device interface is further configured to allow a utility to access said primary storage unit as said secondary storage unit (claim 2; Trimmer describes the disk based virtual tape library is configured to logically correspond to existing physical tape library; page 1, paragraph 6); wherein said virtual device interface is a virtual tape interface (claim 3; Trimmer's page 1 paragraph 1 describes the virtual tape interfaced is added to facilitate the backup commands to a disks based secondary storage; ); said primary storage unit, (claim 4; Trimmer describe of using the disk as back up medium by the virtual tape library interface in paragraph 1; Furthermore, by definition, a backup operation

requires data to be backed up from a primary storage unit to a secondary storage unit); wherein said virtual tape interface is configured to create a virtual loader on said primary storage unit (claim 5; Trimmer describes emulation module capable of operating based on various specifications; page 2, paragraph 20; Trimmer further describes emulation module is capable of creating and emulating multiple physical tape library; Trimmer's page 3, paragraph 24).

As for claim 6, the claim recites a secondary storage unit, (Trimmer describes the virtual tape library capable of emulating multiple physical tape libraries; Trimmer's page 3, paragraph 24; the physical tape library are used for controlling secondary storage unit such as tape devices; Trimmer's page 1, paragraphs 1-4; Furthermore, by definition, a backup operation requires data to be backed up from a primary storage unit to a secondary storage unit).

As for claim 7, Trimmer describes wherein said virtual tape interface comprises: a virtual loader library, communicatively coupled to said primary storage unit; and a virtual loader utilities module, communicatively coupled to said virtual loader library (Trimmer describes the emulation module comprising of: functions to obtaining information for a given virtual tape library such as current number of slots; Page 2, paragraph 20; functions to operating tape devices such as moving robot arms; Page 3, paragraph 25).

As for claim 8, the claim recites a main module, communicatively coupled to said virtual loader library, and a configuration file, accessible by said main module, wherein said configuration file comprises information that allows said virtual loader library to create a virtual loader on said primary storage unit (Trimmer describes in Fig 1; the first and second steps are to obtain specifications for the emulation module and to configure a virtual tape library accordingly to the specifications; paragraphs 15-17].

As for claim 9, the claim recites said virtual loader library is configured to allow a utility to access said primary storage unit as said secondary storage unit (Trimmer describes the data protection application is allowed to access a disk using the access commands to physical tape library; Trimmer's page 3, paragraph 25)

As for claim 10, Trimmer describes a method comprising: converting a first command to a second command, wherein said first command is configured to control a first type of storage unit, said second command is configured to control a second type of storage unit, said first type of storage unit is a secondary storage unit, and said second type of storage unit is a primary storage unit (Trimmer describes the method to emulating tape commands into the disk based storage commands; Trimmer's page 3, paragraph 25); and accessing said secondary storage unit using a virtual tape interface (Trimmer's page 4 paragraph 32 describes the code in the data protection application DPA and emulation module providing interface not only for common device interfaces such as SCSI or FC but it also intercept a command and providing the translated commands to the real physical storage device. Thus, Trimmer clearly describes the DPA and emulation module comprises of a virtual device interface that can control the physical secondary storage device by sending it the translated commands).

As for claim 11, the claim recites wherein said secondary storage unit is a tape backup unit, and said primary storage unit is a hard drive. The claim rejected based on the same rationale as in the rejection of claim 10. By definition, a backup operation requires data to be backed up from a primary storage unit to a secondary storage unit. Furthermore, it has been known in the art, in a typical backup operation, disks are being used as primary storage units and tapes are being used as secondary storage units.

As for claim 12, Trimmer describes creating a virtual loader (Page 3, paragraph 24), wherein said converting and said creating are performed by a virtual tape interface (Page 3, paragraph 25).

As for claim 15, the claim recites wherein said secondary storage unit is communicatively coupled to said virtual tape interface. The claim rejected based on the same rationale as in the rejection of claim 11. Trimmer's paragraph 2 describes current existing DPA with code for interfacing to tape devices during the backup operation.

Claims 16,22,28 rejected based on the same rationale as in claim 10.

Claims 17,23,29 rejected based on the same rationale as in claim 11.

Claims 18,24,30 rejected based on the same rationale as in claim 12.

Claims 21,27,33 rejected based on the same rationale as in claim 15.

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 13-14,19-20,25-26,31-32 rejected under 35 U.S.C. 103(a) as being unpatentable over Trimmer et al (US Pub 2004/0111251) as applied to claims 12,18,24,30 respectively, and further in view of Anna et al (US Pub 2004/0078639).

As for claims 13-14, the claim recite wherein said creating creates a directory on said hard drive (claim 13); storing information on a virtual tape in said virtual loader, wherein said storing stores information in a file in said directory, and said file corresponds to said virtual tape (claim 14). Trimmer does not describe the claim's detail of a directory. However, Anna describes logical volumes in a virtual tape server are stored in files and in directories (Anna's page 2, paragraph 20). It would have been obvious to one of ordinary skill in the art at the time of invention to include Anna's file system manager as suggested by Anna in Trimmer's system to organizing all the files in a volume in a directory and thereby providing an efficient method of recovering lost or inaccessible data in a volume (Anna's page 4, paragraph 57; page, paragraph 66).

Claims 19-20,25-26,31-32 rejected based on the same rationale as in claims 13-14 correspondingly.

### ***Response to Arguments***

Applicant's arguments in response to the last office action has been fully considered but they are not persuasive. Examiner respectfully traverses Applicant's arguments for the following reasons:



As to the remarks on pages 9-11, Trimmer's page 4 paragraph 32 describes the code in the data protection application DPA and emulation module providing interface not only for common device interfaces such as SCSI or FC but it also intercept a command and providing the translated commands to the real physical storage device. Thus, Trimmer clearly describes the DPA and emulation module comprises of a virtual device interface that can control the physical secondary storage device by sending it the translated commands.

### *Conclusion*

**THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

Applicant's amendment filed 8/18/03 necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL.** See MPEP 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

When responding to the office action, Applicant is advised to provide the examiner with the line numbers and page numbers in the application and/or references cited to assist examiner to locate the appropriate paragraphs.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Duc T. Doan whose telephone number is 571-272-4171. The examiner can normally be reached on M-F 8:00 AM 05:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mano Padmanabhan can be reached on 571-272-4210. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

*Mano Padmanabhan*  
1/19/06

**MANO PADMANABHAN**  
**SUPERVISORY PATENT EXAMINER**